

TITLE OF THE INVENTION:

APPARATUS AND METHOD FOR DISTRIBUTING A LOAD ACROSS A TRUNK GROUP

REFERENCE TO RELATED APPLICATIONS:

5 This application claims priority of United States Provisional Patent Application Serial No. 60/135,602, filed on May 24, 1999. The contents of this provisional application is hereby incorporated by reference. Further, this application is a Continuation-in-Part of U.S. Application Serial No. 09/343,409, filed June 30, 1999, *now issued as U.S. Patent No. 6,335,932.*

BACKGROUND OF THE INVENTION:

Field of the Invention:

The invention relates to a method and apparatus for high performance switching in local area communications networks such as token ring, ATM, ethernet, fast ethernet, and gigabit ethernet environments, generally known as LANs. In particular, the invention relates to a new switching architecture in an integrated, modular, single chip solution, which can be implemented on a semiconductor substrate such as a silicon chip.

Description of the Related Art:

As computer performance has increased in recent years, the demands on computer networks has significantly increased; faster computer processors and higher memory capabilities need networks with high bandwidth capabilities to enable high speed transfer of significant amounts of data. The well-known ethernet technology, which is based upon numerous IEEE ethernet standards, is one example of computer networking technology which has been able to be modified and improved to remain a viable computing technology. A more complete discussion of prior art networking systems can be found, for example, in SWITCHED AND FAST ETHERNET, by Breyer and Riley (Ziff-Davis, 1996), and numerous IEEE publications relating to IEEE 802 standards. Based upon the Open Systems Interconnect (OSI) 7-layer reference model, network capabilities have grown through the development

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